THE RURAL DIGITAL FACTORY NETWORK

A 21ST CENTURY APPROACH TO RURAL JOB CREATION AND COMMUNITY SUSTAINABILITY

Executive Summary

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The Rural Digital Factory Network

The Challenge – Old Rural Economy versus New Global Economy

The golden days when plentiful unskilled and semi-skilled manufacturing jobs were the bread and butter of southern rural economies are now passed. 68% of American jobs are now skilled labor requiring some type of post-secondary education. Yet today, 27% of U.S. students drop out of high school and in states such as Tennessee, only 18 out 100 actually gain any type of post-secondary certification. Worse, it is estimated that over 90 percent of rural college graduates leave their hometown for greener pastures in bigger cities.

The current recession and the global shift to a service and knowledge-based economy have now forced to the fore a number of urgent questions for the rural South and other rural regions:

How can rural communities retool for the post-manufacturing era economy and experience new economy job growth **_now?_**

How do we keep rural young people from leaving their communities?

How do we better prepare the rural work force and do so rapidly on a statewide **and** sustainable basis?

The rural Digital Factory Network model can provide an answer for all these questions.

While there is no magic bullet to solve the entire rural economic crisis, the Digital Factory Network model opens new doors to thousands of jobs for displaced and underemployed rural workers. It brings the 21st Century digital economy to rural Main Streets and provides a new paradigm for young people who want to earn a 21st Century wage without leaving their hometown.

The Model

The Digital Factory Network trains and places new and displaced workers into good paying jobs that can be performed over the Internet. Physically, the Digital Factory is a rural-based office that contains desks, broadband Internet, phones, computers, printers, and conference rooms, all in a relaxed work atmosphere similar to an Internet Cafe or an urban co-working center. There are thousands of jobs to be found online today if a candidate has the right skills, tools, mentoring and job placement assistance. The Digital Factory "lines" range from very simple unskilled online "piecework" and semi-skilled virtual customer service representatives, to highly skilled work like programming and content creation.

The Digital Factory Network model is also scalable. In Tennessee for example, just 20 Digital Factory workers trained and placed in each of its 90 rural counties, would create 1,800+ good jobs paying between $8-$35 per hour, depending on the skill set required. Repeating this achievable 20-workers-per-county goal annually would create **the direct job & wage equivalent of a virtual industrial megasite every year-** with far less acquisition cost, environmental impact, and single employer dependency.

Advantages

The Digital Factory Network approach provides a significant benefit to rural workers, rural communities, state economies, government agencies, and companies seeking alternatives to overseas online labor. **It is designed to be *commercially* sustainable in the long term without repeated grant funding.**

The Digital Factory provides a 1:1 approach to educating and retooling displaced workers for the 21st Century economy. This gives them the ability to quickly find real employment. By working in the Digital Factory environment, workers also learn independent and entrepreneurial approaches to job search and career development and discover new opportunities for their life. Because Digital Factories are typically placed in county seats where broadband is already available, **rural workers do not have to wait for broadband to reach their homes to get into the 21st century economy.** The Digital Factory concept also drives sustainable broadband adoption in rural communities – a job is the ultimate adoption driver.

How It Works

1. **Potential rural workers are interviewed by local Digital Factory Network managers**. A minimum GED educational level is mandatory for acceptance into the program.

2. **Workers are selected based on their aptitude for training and online jobs available _now_.** Training is funded by the local Workforce Investment Act Board (WIAB) and is certificate-based under the National Career Readiness Certificate and other technical certificate programs. WIAB training partners are state higher education centers that can also open the doors to post-secondary completion for trainees.

3. **Workers are placed with a wide variety of online employers in jobs performed over the Internet.** Depending on the needs of the employer and individual, the work may be contract, piece work, part or full time. The Digital Factory Network is responsible for vetting online job opportunities and connecting workers with the best potential employers. **The Network's metric for success is a hired worker.**

4. Like a traditional factory, **a local Digital Factory is the place where rural workers "go to work"**. Workers who are employed and working at the Digital Factory then pay, according to their salary and job levels, a small monthly fee for using the facilities and services of the Digital Factory Network, making the operation **sustainable without ongoing government support**.

Any skill that can be off-shored globally can be <u>rural-sourced</u> through a rural Digital Factory Network. The Bureau of Labor Statistics lists 160 occupational codes as eligible for off-shoring over the Internet. A powerful incentive for businesses to hire through the Digital Factory Network lies in scalability. By drawing from multiple Digital Factories, the number of workers can expand and contract to quickly accommodate cyclical or other changes in demand.

Other advantages for U.S. companies in hiring U.S-based rural Digital Factory workers include:

1. Cultural clarity in language and communication – *often a major issue in offshore project management.*
2. Workers are under U.S. contract and intellectual property law - *better protection of trusted U.S. assets.*
3. Workers can easily travel in U.S. if needed - *not an option for overseas workers.*
4. Workers can be hired away to a U.S. headquarters if desired - *highly limited for overseas worker.*
5. Lower rural cost of living makes living wages competitive against urban areas - *above advantages begin to offset offshore labor cost advantages.*
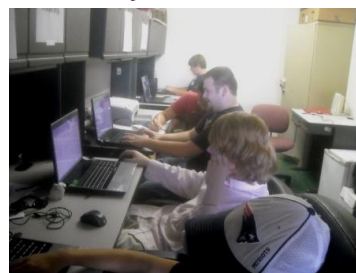
How the Digital Factory Network Benefits Workers

The Digital Factory Network is a **social business**[1]. The company's success is gauged by how many Digital Factory workers have found jobs and how well they are being paid, not the traditional for-profit metrics of return to investors. The Digital Factory Network's reason for existence is to identify rural candidates, find them jobs, and keep them moving up in skills and benefits. The more rural workers that are employed and the more they are prospering, the more the Digital Factory Network prospers. The Digital Factory Network can also foster health insurance and buying co-ops for other services beyond just jobs. **The benefit to workers will grow as the number of rural communities and participating workers grow.**

> **Mandy–A Case Study**
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> Mandy is a 23-year old displaced worker in Perry County where our pilot program was launched. Our first Digital Factory test project was a "crowdsourcing" project that involved simple online cut-and-paste "piecework" or micro-work. For this job, workers were paid 15 cents for each item correctly processed online. Mandy clocked an amazing $19 an hour at the peak of her efforts - about 2.2 items per minute! Other workers made from $8-$14 an hour. While mirco-work is project-based and not yet a source of stable income, this first exposure to the online economy opened Mandy's eyes to the many new possibilities for life and career advancement in her local community. Opening rural eyes to other economic possibilities is a major outcome of the Digital Factory concept.

How the Digital Factory Network Benefits State & Federal Governments

A statewide rural Digital Factory Network can be a powerful tool for attracting new businesses and industries to any region. **Workforce readiness is increased by the number of skilled workers within a commute radius of a potential relocation site.** The Digital Factory Network will allow new forms of work to be attracted that can take advantage of a value-priced, high-tech workforce. The presence of a strong, flexible, entrepreneurial social business partner can uncover and implement major new strategies for rural economic and social growth. This has been conclusively demonstrated around the world. Our pilot project in **Perry County**, TN demonstrates how effective this partnership can be across state & federal programs.

How the Digital Factory Model Benefits U.S. Business

U.S. companies are embracing 21st Century models of work and employment. 38% of U.S. companies are seeking telecommuters rather than in-house employees that require the added expense of bricks and mortar. A dependence on Internet and mobile applications is growing in all sectors of global business. **The _online world_ is becoming in the 00's, 10's and 20's, what IT became to industry throughout the 70's, 80's and 90's,.** Traditional IT functions are being moved to "the cloud", and certain classes of work are now unique to the online model. This creates a fast-growing need for cost-effective and skilled

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[1] See http://en.wikipedia.org/wiki/Social_business & www.youtube.com/watch?v=0C3XQ3BTd4o

employees. The Digital Factory Network creates the needed source of dedicated, reliable digital workers that can work on any-scale project in a coordinated and very cost-effective way. The social business model of the Digital Factory Network is also a major plus in terms of corporate image and advertising.

How the Digital Factory Network Benefits Rural Communities

The placement of a Digital Factory in a rural county seat lights a local flame of hope and creates a visible sign of 21st Century economic life in the community. It gives rural county and city mayors and other stakeholders rapid lessons in the inner workings of the 21st Century global economy. It also provides a rural presence of new skills such as web programming, social media, eCommerce, and other online skills found in any urban area. These are essential for modern business and government, and make a significant statement about local workforce readiness. The Digital Factory will also be a natural point for entrepreneurial startups which ultimately creates local *wealth,* not just jobs. The Internet has no boundaries for its business operations. By concentrating people who work on the Internet together in one building, the opportunities for new collaborations and all types of business formation are increased. Local K-12 young people also gain a new, tangible vision for their future and a growing group of tech mentors. The likelihood of reversing the exodus of rural youth increases as their options and interest increase. Science, Technology, Engineering, & Math (STEM) subjects suddenly now hold new local relevance to K-12 students.

Next Steps

A Digital Factory pilot is now underway in Perry County, TN. The first workers are being trained and placed in jobs. Intake processes and the vetting of larger scale, online job opportunities is well underway. Indications are that 20 people placed in jobs per year is a conservative number for even the smallest of counties. **In Perry County over 30 people applied in less than 72 hours from a single newspaper article.** More come each day with amazing skills sets. The pilot is funded through a Tennessee Economic & Community Development grant. There is a need today for a federal funding mechanism to support a 3 year, 90-county ramp-up to sustainability. This could be provided in part by a number of existing federal programs at USDA Rural Development and other agencies in concert with foundations who fund social business models, entrepreneurship, and other private funds.

The Digital Factory is not a theory, it is a living model based on three years of real world experience and public-private partnership. We believe it can hold significant promise for breathing new life into rural America.

About cTechnology Inc. - cTechnology is a Tennessee-based social business whose vision is to see thriving and growing rural communities in America. We work at the intersection of education, economic development, and online technology. Our work is hands-on, in the field, and we link local, state, and federal agencies with our experienced and innovative team to create scalable, long term solutions for rural sustainability and growth.

Examples of online work opportunities

Crowdsourcing
www.mturk.com

Design
www.99designs.com

Virtual work site
www.odesk.com